SEQUENCE LISTING

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<110> Cell Signaling Technology, Inc.
COMB, Michael J.
ZHANG, Hui
           TAN, Yi
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     <130> CST-138 CIP2
     <150> US 09/148,712
     <151> 1998-09-04
     <150> US 09/535.364
     <151> 2000-03-24
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CO
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     <400> 19
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           ds except cysteine
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     <400> 47
[]
     Xaa Xaa Xaa Xaa Phe Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Xaa Cys
<210> 48
Ó
     <211> 8
L
            PRT
     <212>
     <213>
            Homo sapiens
â
ļ.:
     <220>
ļ.i
            MOD_RES
     <221>
ļ::
     <222>
            (6)^{-}...(6)
     <223> PHOSPHORYLATION; serine at position 6 is phosphorylated
ļ.,,
     <400> 48
     Arg Gln Arg Ser Thr Ser Thr Pro
     <210> 49
     <211> 8
            PRT
     <212>
     <213> Homo sapiens
     <220>
     <221>
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     <222>
            (6)^{-}...(6)
     <223>
            PHOSPHORYLATION; threonine at position 6 is phosphorylated
     <400> 49
     Lys Gly Arg Thr Trp Thr Leu Cys
```

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5
     1
     <210> 50
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            8
     <212>
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     <213>
            Homo sapiens
     <220>
     <221>
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            (6)^{-}.(6)
     <222>
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            PHOSPHORYLATION; serine at position 6 is phosphorylated
     <400> 50
     Arg Pro Arg Thr Thr Ser Phe Ala
     <210> 51
     <211> 8
     <212> PRT
<213> Homo sapiens
     <220>
|-
     <221>
<222>
<223>
            MOD RES
[]
            (6)^{-}. (6)
ť")
            PHOSPHORYLATION; serine at position 6 is phosphorylated
Ļ.,
<400> 51
ĹÜ
     Arg Arg Arg Thr Ser Ser Phe Ala
1 5
L
!::
     <210> 52
}=
     <211> 8
     <212> PRT
ļ.:
     <213> Homo sapiens
Ĺij.
ľ"
     <220>
<221>
<222>
            MOD_RES
(6)..(6)
ļ.:
            PHOSPHORYLATION; serine at position 6 is phosphorylated
     <400> 52
     <210> 53
     <211>
     <212> PRT
     <213>
            Homo sapiens
     <220>
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     <222> (6)..(6)
     <223> PHOSPHORYLATION; serine at position 6 is phosphorylated
                                                      Page 18
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<400> 53
     Arg Ile Arg Thr Gln Ser Phe Ser
      <210> 54
      <211> 8
      <212> PRT
      <213> Homo sapiens
      <220>
      <221> MOD_RES <222> (6)..(6)
      <223> PHOSPHORYLATION; threonine at position 6 is phosphorylated
      <400> 54
      <210> 55
ķ
      <211> 8
C)
      <212> PRT
[]
      <213> Homo sapiens
ļ.
      <220>
      <221> MOD_RES
      <222> (6)..(6)
Ċ
      <223> PHOSPHORYLATION; threonine at position 6 is phosphorylated
LIT
      <400> 55
ļ.i
ļ.s
      Lys Asp Arg Gln Gly Thr His Lys 1 \hspace{1cm} 5
Fri
Lij
Ē)
      <210> 56
      <211> 8
<212> PRT
<213> Homo sapiens
      <220>
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             (6)^{-}. (6)
      <223> PHOSPHORYLATION; threonine at position 6 is phosphorylated
      <400> 56
      \begin{array}{lll} \text{Arg Asp Arg Asn Gly Thr His Leu} \\ 1 & 5 \end{array}
      <210> 57
      <211> 8
      <212> PRT
      <213> Homo sapiens
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<220>
     <221>
           MOD_RES
     <222>
           (6)^{-}. (6)
     <223> PHOSPHORYLATION; threonine at position 6 is phosphorylated
     <400> 57
    Lys Leu Arg Leu Ser Thr Asp Tyr 1 \hspace{1cm} 5
     <210> 58
     <211> 8
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     <220>
     <221> MOD_RES
     <222> (6)..(6)
           PHOSPHORYLATION; threonine at position 6 is phosphorylated
     <400> 58
ļ.;
[]
     <210> 59
     <211> 8
     <212> PRT
Ċ
     <213> Homo sapiens
Lil
     <220>
E
     <221> MOD_RES
ļ.:
     <222> (6)..(6)
ļ.,
     <223> PHOSPHORYLATION; serine at position 6 is phosphorylated
ļ.:
Lij
     <400> 59
[]
     Arg Leu Arg Lys Ser Ser Ser Tyr
     <210> 60
     <211> 8
     <212> PRT
     <213> Homo sapiens
     <220>
     <221>
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<223>
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           PHOSPHORYLATION; threonine at position 6 is phosphorylated
     <400> 60
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<210> 61
     <211>
            8
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            PRT
     <213>
            Homo sapiens
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     <222>
            (6)^{-}...(6)
     <223>
            PHOSPHORYLATION; serine at position 6 is phosphorylated
     <400> 61
     Arg Arg Ala Ala Ser Met Asp
     <210> 62
     <211>
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     <213> Homo sapiens
     <220>
<221>
<222>
            MOD_RES
(4)..(4)
<223>
            PHOSPHORYLATION; threonine at position 4 is phosphorylated
[]
[]
ļ.:
     <400> 62
Arg Phe Phe Thr Arg
Ċ
Įij.
     <210> 63
S
     <211>
1 ::
     <212> PRT
ļ.,
     <213> Homo sapiens
Į.i.
     <220>
LJ
     <221> MOD_RES
<222>
            (4)^{-}..(4)
14
            PHOSPHORYLATION; threonine at position 4 is phosphorylated
     <400> 63
     Arg Thr Tyr Thr Leu
     <210> 64
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            Homo sapiens
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            MOD_RES
     <221>
     <222>
            (4)^{-}...(4)
      <223> PHOSPHORYLATION; threonine at position 4 is phosphorylated
```

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     Lys Arg Ser Thr Met
     <210> 65
     <211>
            5
     <212> PRT
     <213> Homo sapiens
     <220>
<221> MOD_RES
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     <223> PHOSPHORYLATION; serine at position 4 is phosphorylated
     <400> 65
     Arg Arg Ser Ser 1 5
     <210> 66<<211> 5
            66
     <212> PRT
<u>|--</u>
     <213> Homo sapiens
£3
Ľ.
     <220>
<221>
            MOD RES
     <222>
            (4)^{-}..(4)
     <223>
            PHOSPHORYLATION; serine at position 4 is phosphorylated
Lil
     <400> 66
     Arg Arg Pro Ser Tyr 5
ļ
ļ.:
     <210> 67
Lij
     <211> 5
     <212> PRT
ļ.:
     <213> Homo sapiens
     <220>
     <221> MOD_RES <222> (4)..(4)
             (4)^{-}.(4)
            PHOSPHORYLATION; threonine at position 4 is phosphorylated
     <400> 67
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     <210> 68
     <211> 5
     <212> PRT
     <213> Homo sapiens
     <220>
```

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<221> MOD RES
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            (4)^{-}.(4)
            PHOSPHORYLATION; serine at position 4 is phosphorylated
     <400> 68
     Arg Ser Pro Ser Met
     <210> 69
     <211>
            5
            PRT
     <212>
     <213>
            Homo sapiens
     <220>
     <221> MOD_RES
     <222> (4)..(4)
            PHOSPHORYLATION; threonine at position 4 is phosphorylated
     <400> 69
     Arg Lys Arg Thr Val
þ.i
[]
     <210> 70
į.,
     <211>
----
     <212> PRT
     <213> Homo sapiens
     <220>
<221>
<222>
Ľij
Į.
            MOD_RES (4)..(4)
₽
     <223>
            PHOSPHORYLATION; threonine at position 4 is phosphorylated
ļ.
ļ.:
ļ.
     <400> 70
Lij
     Arg Gln Gly Thr His
ļ.:
     <210> 71
     <211>
     <212> PRT
     <213> Homo sapiens
     <220>
            MOD_RES (4)..(4)
     <221>
     <222>
            PHOSPHORYLATION; threonine at position 4 is phosphorylated
     <400> 71
     Arg Ser Leu Thr Glu
     <210> 72
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<211>
<212>
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             PRT
     <213>
             Homo sapiens
     <220>
     <221>
<222>
<223>
             MOD RES
             (4)^{-}..(4)
             PHOSPHORYLATION; threonine at position 4 is phosphorylated
     <400> 72
     Arg Gln Glu Thr Val
     <210> 73
     <211>
     <212> PRT
     <213> Homo sapiens
     <220>
     <221>
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     <222>
            (4)^{-}..(4)
             PHOSPHORYLATION; threonine at position 4 is phosphorylated
ļ-:<u>-</u>
[]
     <400> 73
[]
ļ.:
     Arg Ala Tyr Thr His
£0
     <210> 74
LII
     <211>
             5
     <212> PRT
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            Homo sapiens
ļ.i
ļ.:
     <220>
            MOD_RES
     <221>
-:
      <222>
             (4)^{-}...(4)
Ĺij
            PHOSPHORYLATION; threonine at position 4 is phosphorylated
[]
     <400> 74
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      <210> 75
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      <220>
      <221>
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      <222>
<223>
             (4)^{-}.(4)
             PHOSPHORYLATION; threonine at position 4 is phosphorylated
      <400> 75
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Lys Ser Val Thr Asp 5
      <210> 76
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      <222> (4)..(4)
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      <400> 76
     Arg Lys Ser Ser Ser
1 5
      <210> 77
      <211> 5
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      <213> Homo sapiens
      <220>
<u>[]</u>
      <221> MOD_RES
      <222>
             (4)^{-}..(4)
ļ.
      <223> PHOSPHORYLATION; threonine at position 4 is phosphorylated
<400> 77
     Arg Ser Cys Thr Tyr
Lij
₽
ļ.
F:5
      <210> 78
      <211> 5
---
      <212> PRT
Lij
      <213> Homo sapiens
     <220>
<221> MOD_RES
<222> (3)..(3
             (3)^{-}. (3)
             PHOSPHORYLATION; threonine at position 3 is phosphorylated
      <400> 78
      Phe Phe Thr Arg His
      <210> 79
     <211> 5
<212> PRT
<213> Homo sapiens
      <220>
      <221> MOD RES
      <222> (3)..(3)
```

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<223> PHOSPHORYLATION; threonine at position 3 is phosphorylated
<400> 79
Thr Trp Thr Leu Cys 1 - 5
<210> 80
<211> 5
<212> PRT
<213>
      Homo sapiens
<220>
<221>
       MOD RES
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<400> 80
Gln Arg Ser Phe Val
<210> 81
<211> 5
<212> PRT
<213>
       Homo sapiens
<220>
<221>
       MOD RES
      (3)..(3) PHOSPHORYLATION; serine at position 3 is phosphorylated
<222>
<400> 81
Ala Tyr Ser Phe Cys
<210> 82
<211> 5
<212> PRT
<213> Homo sapiens
<220>
<221>
<222>
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       (3)^{-}.(3)
      PHOSPHORYLATION; serine at position 3 is phosphorylated
<400> 82
Gly Tyr Ser Phe Val
<210> 83
<211> 5
<212> PRT
```

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```
<213> Homo sapiens
     <220>
            MOD_RES
     <221>
     <222> (3)..(3)
<223> PHOSPHORYLATION; serine at position 3 is phosphorylated
     <400> 83
     Thr Thr Ser Phe Ala
     <210> 84
     <211>
     <212> PRT
     <213> Homo sapiens
     <220>
     <221> MOD_RES
     <222> (3)..(3)
     <223> PHOSPHORYLATION; serine at position 3 is phosphorylated
     <400> 84
ļ.,
[]
     Thr Ser Ser Phe Ala
£"
1-:
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.
     <210> 85
     <211> 5
Ċ
     <212> PRT
LII
     <213> Homo sapiens
     <220>
ļ.:
     <221> MOD_RES
ļ.:
     <222> (3)..(3)
     <223> PHOSPHORYLATION; threonrine at position 3 is phosphorylated
ļ.;
Lij
Ēij
     <400> 85
ļ.i
     Val Tyr Thr His Glu
     <210> 86
     <211> 5
     <212> PRT
     <213> Homo sapiens
     <220>
     <221> MOD_RES
     <222>
            (3)^{-}.(3)
            PHOSPHORYLATION; threonrine at position 3 is phosphorylated
     <400> 86
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```

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       <211>
       <212> PRT
       <213> Homo sapiens
       <220>
       <221>
               MOD RES
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               (3)^{-}.(3)
               PHOSPHORYLATION; threonrine at position 3 is phosphorylated
       <400> 87
      Ala Tyr Thr His Gln
       <210>
               88
       <211> 15
       <212> PRT
       <213> Homo sapiens
      <220>
<221>
<222>
                MOD RES
                (10\overline{)}..(10)
Ľ.
       <223>
                PHOSPHORYLATION; threonine at position 10 is phosphorylated
ļ.i
<220>
       <221>
               MISC_FEATURE
       <222>
                (2)...(15)
CO
               At postions 2-4, 6, 9, and 13-15. X = \text{any amino acid except C} and W: At position 8, X = \text{any amino acid except C} and W and is biased 50% to T; At position 11, X = \text{any amino acid except C} and W and is biased 50% to F; At position 12, X = \text{any amino acid except}
       <223>
Ē
1
                 C and W and is biased 50% to G.
ļ.:
1
       <400> 88
Į.J
       Cys Xaa Xaa Xaa Arg Xaa Arg Xaa Xaa Thr Xaa Xaa Xaa Xaa Xaa
       <210>
               89
       <211>
               13
       <212> PRT
       <213>
               Homo sapiens
       <220>
                MOD_RES
       <221>
       <222>
                PHOSPHORYLATION; serine at position 7 is phosphorylated
       <220>
               MISC_FEATURE
       <221>
       <222>
                (2).\overline{.}(13)
               At postions 2-4, 11-13, X = any amino acid except C, W or Y; A
                t positions 5-6 and 9-10, X = K or R; At position 8, X = F, L,
                or V.
```

```
<400> 89
Cys Xaa Xaa Xaa Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa
<210> 90
<211> 7
<212> PRT
<213> Homo sapiens
<220>
<221> MOD_RES <222> (5)..(5)
       PHOSPHORYLATION; serine at position 5 is phosphorylated
<220>
<221> MISC FEATURE
<222> (2)..(6)
<223> At positions 2, 4, and 6, X = any amino acid; At position 3, X = 
<400> 90
Arg Xaa Xaa Xaa Ser Xaa Pro
<210> 91
<211> 14
<212> PRT
<213>
       Homo sapiens
<220>
<221> MOD_RES
<222> (8)..(8)
<223> PHOSPHORYLATION; serine at position 8 is phosphorylated
<220>
<221> MISC_FEATURE <222> (1)..(13)
<223> At postions 1-3, 5, 7, 9, and 11-13, X = any amino acid except c ysteine: At position 6, X = F or Y.
<400> 91
Xaa Xaa Xaa Arg Xaa Xaa Xaa Ser Xaa Pro Xaa Xaa Xaa Cys
<210> 92
<211> 16
<212> PRT
<213> Homo sapiens
<220>
<221> MOD_RES
```

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<222> (9)..(9)
<223> PHOSPHORYLATION; threonine at position 9 is phosphorylated
<220>
<221> MISC_FEATURE <222> (2)..(16)
      At positions 2-7 and 12-16, X = any amino acid except C; At posi
       tion 11, X = D or E
<400> 92
Cys Xaa Xaa Xaa Xaa Xaa Leu Thr Gln Xaa Xaa Xaa Xaa Xaa
<210> 93
<211> 16
<212> PRT
<213> Homo sapiens
<220>
<221>
<222>
      MOD_RES
       (9)^{-}.(9)
<223>
      PHOSPHORYLATION; serine at position 9 is phosphorylated
<220>
<221>
<222>
      MISC_FEATURE
       (2)..(16)
<223> At positions 2-7 and 12-16, X = any amino acid except C; At posi
       tion 11, X = D or E
<400> 93
Cys Xaa Xaa Xaa Xaa Xaa Xaa Leu Ser Gln Xaa Xaa Xaa Xaa Xaa
<210> 94
<211> 13
<212>
      PRT
<213>
      Homo sapiens
<220>
<221>
      MOD_RES
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       (8)^{-}. (8)
       PHOSPHORYLATION; serine at position 8 is phosphorylated
<220>
<221> MISC_FEATURE <222> (2)..(13)
<223> At positions 2-4, 7, 9, and 11-13, X= any amino acid except C
<400> 94
Cys Xaa Xaa Xaa Arg Ser Xaa Ser Xaa Pro Xaa Xaa Xaa
```

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```
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<211> 8
<212> PRT
<213>
       Homo sapiens
<220>
       MOD RES
<221>
<222>
       (6)^{-}. (6)
<223>
       PHOSPHORYLATION; threonine at position 6 is phosphorylated
<220>
<221> MISC FEATURE
<222>
      (2)...(8)
<223> At positions 2 and 4-5, X = any amino acid
<400> 95
Phe Xaa Arg Xaa Xaa Thr Phe Phe
<210>
      96
<211>
       17
<212>
       PRT
<213>
       Homo sapiens
<220>
       MOD RES
<221>
<222>
       (10\overline{)}..(10)
<223>
       PHOSPHORYLATION; threonine at position 10 is phosphorylated
<220>
<221> MISC FEATURE
<222>
       (2)...(8)
       At postions 2 and 16-17, X = any amino acid except C and W: At
       positions 3-4, X = any amino acid except C and W and is biased S
       0\% to R; At position 6, X = any amino acid except C and W and is biased 50\% to K; At position 8, X = any amino acid except C and W
        and is biased 50% to Q
<220>
<221>
       MISC_FEATURE
<222>
       (9).\overline{.}(17)
<223>
       At postion 9, X = any amino acid except C and W and is biased 50
       % to G: At position 13, X = any amino acid except C and W and i
       s biased 50% to Y; At positions 14-15, X = any amino acid except
       C and W and is biased 50% to F
<400> 96
Cys Xaa Xaa Xaa Phe Xaa Arg Xaa Xaa Thr Phe Phe Xaa Xaa Xaa
```

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```
<210> 97
     <211> 6
     <212>
            PRT
     <213>
            Homo sapiens
     <220>
     <221>
            MOD RES
     <222>
             (3)^{-}. (3)
     <223>
            PHOSPHORYLATION; tyrosine at position 3 is phosphorylated
     <220>
<221> MISC_FEATURE
<222> (5)...(5)
     <223> At position 5, X = any amino acid
     <400> 97
     Val Ile Tyr Ala Xaa Pro
     <210>
            98
            15
     <211>
            PRT
     <212>
      <213>
            Homo sapiens
<220>
            MOD RES
     <221>
     <222>
             (8)..(8)
     <223>
            PHOSPHORYLATION; tyrosine at position 8 is phosphorylated
LII
     <220>
£
     <221> MISC_FEATURE
<u>ļ</u>...
     <222>
            (2).\overline{.}(15)
ļ.:
            At postions 2-3, 5, and 13-15, X = \text{any amino acid except C} and W
                At positions 4 and 10, X = any amino acid except C and W and
<u>|</u>
             is biased 50% to A; At position 12, X = any amino acid except C a
Lij
             nd W and is biased 50% to F
ļ
     <400> 98
     Cys Xaa Xaa Xaa Xaa Val Ile Tyr Ala Xaa Pro Xaa Xaa Xaa
      <210> 99
      <211>
            9
      <212> PRT
      <213>
            Homo sapiens
      <220>
      <221>
             MOD_RES
      <222>
             (5)^{-}.(5)
             PHOSPHORYLATION; threonine at position 5 is phosphorylated
      <220>
      <221> MISC FEATURE
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<222> (2)..(7)
      <223> At positions 2-4 and 7, X = any amino acid
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      Lys Xaa Xaa Xaa Thr Pro Xaa His Arg
      <210> 100
      <211> 14
      <212> PRT
      <213> Homo sapiens
      <220>
      <221> MOD_RES <222> (8)..(8)
             PHOSPHORYLATION; threonine at position 8 is phosphorylated
      <220>
      <221> MISC_FEATURE
      <222> (2)..(14)
             At postions 2-3 and 13-14, X = any amino acid except C and W: A
      <223>
              t positions 5-6. X = any amino acid except C and W and is biased 50% to H: At positions 7 and 10. X = any amino acid except C an
C)
              d W and is biased 50% to K
C)
<400> 100
      Cys Xaa Xaa Lys Xaa Xaa Xaa Thr Pro Xaa His Arg Xaa Xaa
Ċ
LII
      <210> 101
<211> 14
Į.i
k:i
      <212> PRT
      <213> Homo sapiens
-:
Lij
      <220>
[]
      <221> MOD RES
      <222>
              (8)^{-}..(8)
             PHOSPHORYLATION; tyrosine at position 8 is phosphorylated
      <220>
      <221> MISC_FEATURE
      <222>
              (2)...(14)
             At postions 2-4 and 13-14, X = any amino acid except C and W; A
              t positions 5-7. X = any amino acid except C and W and is biase
              d 50% to E and D; At position 10, X = any amino acid except C and W and is biased 50% to M; At position 12, X = any amino acid exc
              ept C and W and is biased 50% to F
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     <211> 4
     <212> PRT
     <213> Homo sapiens
     <220>
     <221>
<222>
           MOD RES
           (1)^{-}...(2)
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     <220>
     <221> MISC_FEATURE <222> (3)..(3)
     <223> At position 3, X = any amino acid
     <400> 102
     Tyr Met Xaa Met
     <210> 103
     <211> 15
     <212> PRT
     <213> Homo sapiens
Ċ)
     <220>
     <221>
<222>
           MOD RES
L.5
            (9)^{-}...(9)
           PHOSPHORYLATION; tyrosine at position 9 is phosphorylated
Ĺij
     <220>
LII
     <221> MISC_FEATURE
Ξ
     <222>
           (2)...(15)
ļ.:
     <223> At postions 2-7, 11, and 13-15, X = any amino acid except C and
ļ.::
            W: At position 8, X = any amino acid except C and W and is biased
             50% to E
ļ.
Lij
[]
     <400> 103
L:
     <210> 104
     <211> 6
     <212> PRT
     <213> Homo sapiens
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            (4)^{-}...(4)
            PHOSPHORYLATION; threonine at position 4 is phosphorylated
     <220>
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     <222> (3)..(3)
     <223> At position 3, X = any amino acid
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     <210> 105
     <211> 15
     <212> PRT
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            PHOSPHORYLATION; threonine at position 8 is phosphorylated
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     <222> (2)..(15)
     <223> At postions 2-3 and 13-15, X = any amino acid except C and W;
            t position 4. X = any amino acid except C and W and is biased 50
            % to K: At position 7, X = any amino acid except C and W and is
            biased 50% to Q; At position 11, X = any amino acid except C a
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            nd W and is biased 50% to L
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     <220>
            MISC_FEATURE
     <221>
     <222>
            (12)..(12)
            At position 12, X = any amino acid except C and W and is biased
     <223>
ĹÜ
            50% to F
≆
     <400> 105
ļ.;
ļ.:
     Cys Xaa Xaa Xaa Arg Gln Xaa Thr Phe Asp Xaa Xaa Xaa Xaa Xaa
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Li
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     <210>
           106
     <211> 7
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            Homo sapiens
     <220>
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            MOD RES
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            (4)^{-}...(4)
            PHOSPHORYLATION; tyrosine at position 4 is phosphorylated
     <220>
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     <222> (2)..(2)
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     <400> 106
     Glu Xaa Ile Tyr Gly Glu Phe
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     <211> 16
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            PHOSPHORYLATION; tyrosine at position 9 is phosphorylated
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     <223> At postions 2-4 and 13-16, X = any amino acid except C and W; A
             t positions 5 and 7. X = any amino acid except C and W and is bi
             ased 50% to E
     <400> 107
     Cys Xaa Xaa Xaa Xaa Glu Xaa Ile Tyr Gly Glu Phe Xaa Xaa Xaa Xaa
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     <210> 108
<211> 4
     <212> PRT
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     <213> Homo sapiens
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            MOD_RES
LII
             (1)^{-}..(1)
             PHOSPHORYLATION; serine at position 1 is phosphorylated
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     <221> MISC_FEATURE <222> (4)..(4)
<u>Ļ</u>.
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     <223> At position 4, X = K or R
[]
     <400> 108
     Ser Pro Arg Xaa
     <210> 109
     <211> 16
     <212> PRT
     <213> Homo sapiens
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            MOD_RES
             (9)^{-}...(9)
             PHOSPHORYLATION; serine at position 9 is phosphorylated
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     <221> MISC_FEATURE
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<223>
      At postions 2-4 and 14-16, X = any amino acid except C and W; A
      t positions 5-7. X = any amino acid except C and W and is biased
       50\% to H; At position 8, X = any amino acid except C and W and i
       s biased 50% to K and R; At position 13, X = any amino acid excep
      t C and W and is biased 50% to R
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Cys Xaa Xaa Xaa Xaa Xaa Xaa Ser Pro Arg Xaa Xaa Xaa Xaa Xaa
<210> 110
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      PHOSPHORYLATION: threonine at position 1 is phosphorylated
<220>
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      MOD RES
       (5)^{-}.(5)
<222>
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      PHOSPHORYLATION; serine at position 5 is phosphorylated
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<223> At positions 3-4, X = any amino acid
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Thr Pro Xaa Xaa Ser Pro
<210> 111
<211>
       18
<212>
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      Homo sapiens
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      MOD RES
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       (8)^{-}.(8)
       PHOSPHORYLATION; threonine at position 8 is phosphorylated
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       (12\overline{)}..(12)
<222>
       PHOSPHORYLATION; serine at position 12 is phosphorylated
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<222> (2)..(18)
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<223> At postions 2, 4, and 14-18. X = any amino acid except C and W; At position 3, X = any amino acid except C and W and is biased 50% to P and F; At positions 5-6 and 11, X = any amino acid except C and W and is biased 50% to P and E; At positions 7 and 10,
         X = any amino acid except C and W and is biased 50% to P
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Cys Xaa Xaa Xaa Xaa Xaa Xaa Thr Pro Xaa Xaa Ser Pro Xaa Xaa
Xaa Xaa
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<211> 15
<212> PRT
<213> Homo sapiens
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        (2)..(15)
<223> At positions 2-6 and 10-15, X = any amino acid except C and W
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        PHOSPHORYLATION; serine at position 5 is phosphorylated
<400> 113
Lys Arg Arg Arg Ser Ser Lys Asp 1 	 5
<210> 114
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       Ser Arg Arg Pro Ser Tyr Arg Lys 5
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       <210> 116
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 LII
             (5)^{-}...(5)
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       <223> PHOSPHORYLATION; serine at position 5 is phosphorylated
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       <400> 116
 ļ.:
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       Gly Trp Lys Asn Ser Ile Arg His 5
       <210> 117
<211> 5
       <212> PRT
       <213> Homo sapiens
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              MOD_RES
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       Gly Leu Thr Val Lys
       <210> 118
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(3)..(3)
              PHOSPHORYLATION; threonine at position 3 is phosphorylated
ļ.
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      <400> 119
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      Phe Phe Thr Arg His 1
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      <210> 120
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LII
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ļ.
      <400> 120
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      <400> 123
Ċ
      Pro Leu Ser Gln Glu
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      <210> 124
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     <400> 126
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     Ser Phe Ser Gln Pro
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<211> 7
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     <223> PHOSPHORYLATION; serine at position 5 is phosphorylated
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